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Docket No. F-8567

Ser. No. 10/527,765

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. - 6. (Canceled)

7. (Currently Amended) An inductive momentary-contact switch comprising:

a locking mechanism;

a sensor unit including a printed circuit board having a sensor coil disposed thereon, and a conductive actuator element supported by said locking mechanism and displaceable relative to said sensor coil, and said sensor coil having a self-inductance which is predominantly determined by a distance between said conductive actuator and said sensor coil wherein a change in said distance produces a self-inductance change;

an evaluation circuit configured to produce an oscillating signal in said sensor such that said sensor coil is conductively connected to said evaluation circuit and conductively driven with said oscillating signal by said evaluation circuit and the self-inductance change in said sensor coil initiates a switching function in said

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evaluation circuit based on changes in said oscillation signal caused by the self-inductance change.

8. (Currently Amended) An inductive position switch apparatus comprising:

a gearshift lever;

an actuator slide;

a sensor unit including a printed circuit board having at least first and second sensor coils disposed thereon adjacent each other in a common plane, and a conductive actuator element slidably supported by said actuator slide and movable by said gearshift lever, and disposed displaceable relative to said first and second sensor coils, and said first and second sensor coils respectively having first and second self-inductances which are predominantly determined by first and second relative positionings of said conductive actuator relative to a respective one of said first and second sensor coils wherein a change in said first and second relative positionings produces respectively first and second self-inductance changes in respective ones of said first and second sensor coils;

an evaluation circuit configured to produce first and second oscillation signals in said first and second sensor coils [[.]], said first and second sensor coils being conductively connected to said evaluation circuit and conductively

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respectively driven with said first and oscillating signals by said evaluation circuit, and said evaluation circuit being configured to detect first and second signal changes in said first and second oscillation signals produced by said first and second self-inductance changes, and initiate a switching function based on a combination of said first and second signal changes; and

the conductive actuator element being configured to simultaneously partially cover said first and second sensor coils and be movable relative to said first and second sensor coils to vary coverage such that a movement of said conductive actuator element produces said first and second signal changes as changes of a signal characteristic, and said first signal change is a change in said characteristic in an opposing direction of increase and decrease in comparison to changes of said characteristic in said second signal change based on a same movement of said conductive actuator.

9. (Previously Presented) The inductive position switch apparatus in accordance with claim 8 further comprising a multiplexer for selectively coupling said first and second sensor coils with the evaluation circuit for detection of said first and second oscillation signals.

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10. (Previously Presented) The inductive position switch apparatus in accordance with claim 9 wherein only one of said first and second sensor coils is switched at any one time into said evaluation circuit and successive evaluations of said characteristic of said first and second signals are compared with each other in order to form a temperature-stable and precise switching criterion.

11. (Previously Presented) The inductive position switch apparatus in accordance with claim 10 further comprising an LC oscillating circuit, wherein said LC oscillating circuit successively applied to said first and second sensor coils.

12. (Previously Presented) The inductive position switch apparatus in accordance with claim 11 adapted for evaluating a resonance frequency of the LC oscillating circuit as said characteristic of said first and second signals.

13. (Currently Amended) An inductive switching apparatus comprising:
a positioning device including at least one of a locking mechanism or a latchable gearshift lever;

a sensor unit including a printed circuit board having at least first and second sensor coils disposed thereon adjacent each other in a common plane, and
a conductive actuator element movably supported by said positioning device, and

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disposed displaceable relative to said first and second sensor coils, and said first and second sensor coils respectively having first and second self-inductances which are predominantly determined by first and second relative positionings of said conductive actuator relative to a respective one of said first and second sensor coils wherein a change in said first and second relative positionings produces respectively first and second self-inductance changes in respective ones of said first and second sensor coils; and

an evaluation circuit configured to produce first and second oscillation signals in said first and second sensor coils [. . .] said first and second sensor coils being conductively connected to said evaluation circuit and conductively respectively driven with said first and oscillating signals by said evaluation circuit, and said evaluation circuit being configured to detect first and second signal changes in said first and second oscillation signals produced by said first and second self-inductance changes, and initiate a switching function based on at least one of said first and second signal changes;

said switching function being based on at least one of:

a first switching function basis including said first and second relative positionings being effected by said locking mechanism setting first and second distances between said conductive actuator element to one of said first and second sensor

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coils along a direction normal to a plane of said first and second sensor coils; or

a second switching function basis including said first and second relative positionings being effected by said gear shift lever moving the conductive actuator element and set by the conductive actuator element being configured to simultaneously partially cover said first and second sensor coils and be movable relative to said first and second sensor coils by said gear shift lever to vary coverage which is overlap overlapping of said first and second coils in said normal direction to said plane of said first and second coils such that a movement of said conductive actuator element produces said first and second signal changes as changes of a signal characteristic, and said first signal change is a change in said characteristic in an opposing direction of increase and decrease in comparison to changes of said characteristic in said second signal change based on a same movement of said conductive actuator.

14. (Previously Presented) The inductive switching apparatus in accordance with claim 13 further comprising an actuator slide, the coverage of said first and

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second sensor coils occurring by displacement of said actuator slide in a direction parallel to said plane of said first and second coils.

15. (Previously Presented) The inductive switching apparatus in accordance with claim 13 wherein only one of said first and second sensor coils is switched at any one time into said evaluation circuit and successive evaluations of said characteristic of said first and second signals are compared with each other in order to form a temperature-stable and precise switching criterion.

16. (Previously Presented) The inductive switching apparatus in accordance with claim 13 further comprising a multiplexer for selectively coupling said first and second sensor coils with the evaluation circuit for detection of said first and second oscillation signals.

17. (Previously Presented) The inductive switching apparatus in accordance with claim 15 further comprising a multiplexer for selectively coupling said first and second sensor coils with the evaluation circuit for detection of said first and second oscillation signals.

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18. (Withdrawn) The inductive momentary-contact switch in accordance with Claim 7, wherein an alternating voltage of constant amplitude and constant frequency is injected into said sensor coil with subsequent evaluation of current amplitudes of the oscillation signal caused by said self-inductance change.

19. (Withdrawn) The inductive position switch apparatus in accordance with Claim 8, wherein an alternating voltage of constant amplitude and constant frequency is injected into said first and second sensor coils with subsequent evaluation of current amplitudes of said first and second signals caused by the first and second self-inductance changes.

20. (Withdrawn) The inductive switch apparatus in accordance with Claim 13, wherein an alternating voltage of constant amplitude and constant frequency is injected into said first and second sensor coils with subsequent evaluation of current amplitudes of said first and second signals caused by the first and second self-inductance changes.

21. (Previously Presented) The inductive switching apparatus in accordance with claim 14, wherein only one of said first and second sensor coils is switched at any one time into said evaluation circuit and successive evaluations of said

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characteristic of said first and second signals are compared with each other in order to form a temperature-stable and precise switching criterion.

22. (Previously Presented) The inductive switching apparatus in accordance with claim 14 further comprising a multiplexer for selectively coupling said first and second sensor coils with the evaluation circuit for detection of said first and second oscillation signals.

23. (Previously Presented) The inductive switching apparatus in accordance with claim 21 further comprising a multiplexer for selectively coupling said first and second sensor coils with the evaluation circuit for detection of said first and second oscillation signals.

24. (Previously Presented) The inductive position switch apparatus according to claim 8, wherein said characteristic is frequency.

25. (Previously Presented) The inductive position switch apparatus according to claim 8, further comprising an LC oscillating circuit, wherein said LC oscillating circuit is successively applied to said first and second sensor coils.

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26. (Canceled)

27. (Previously Presented) The inductive position switch apparatus according to claim 9, wherein said characteristic is frequency.

28. (Previously Presented) The inductive position switch apparatus according to claim 9, further comprising an LC oscillating circuit, wherein said LC oscillating circuit is successively applied to said first and second sensor coils.

29. (Canceled)

30. (New) The switching apparatus of claim 13 wherein:
 said positioning device includes both said locking mechanism and said gearshift lever; and
 said switching function includes first and second modes of operation respectively based on said first and second switching function bases.